MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2019/2020 SESSION

TSO 7021 – Service Oriented Architecture Using Web Services

(All sections / Groups)

15 JANUARY 2020
3.00 p.m - 5.00 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 4 pages only.
2. Answer all the questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write your answers in the Answer Booklet provided.

Question 1

a) Shopee is one of the leading e-commerce company that sells many items from many sellers. Explain how Shopee can transform its functionality into services based on Service Oriented Architecture so that the e-commerce functionalities can be programmed and integrated into various platforms. [4 marks]

b) SOAP, WSDL and UDDI are among the technologies involved in the Service Oriented Architecture. What would happen if we do not have SOAP, WSDL and UDDI? [3 marks]

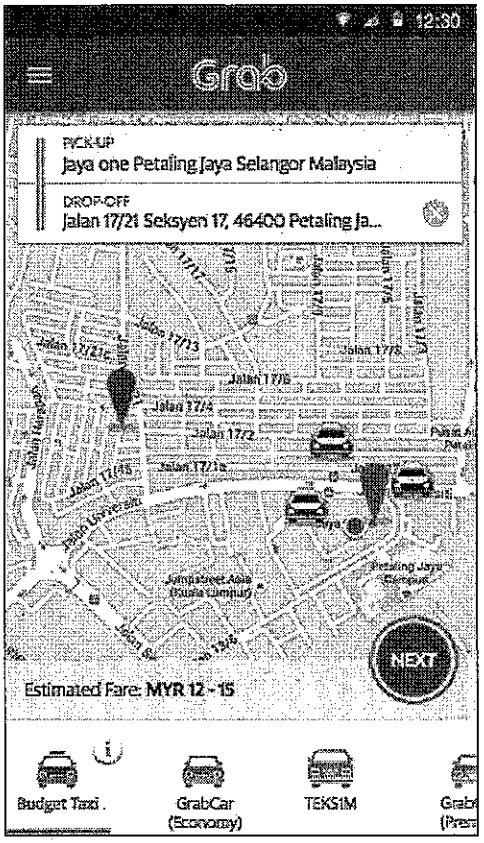
c) How can we create a website that separates the data from the markup tags? [1 mark]

d) When is it necessary to store data using an XML attribute? Provide an example to help justify your answer. [2 marks]

Continued.....

Question 2

Given the following screen shot of Grab mobile application:



a) Write the DTD to represent the data modeling for the above Grab mobile application. [4 marks]

b) Write the XML Schema that is equivalent to the DTD in question 2(a). [4 marks]

c) Write one (1) XML document that conforms to the DTD in question 2(a). [2 marks]

Continued.....

Question 3

a) What is a SOAP Fault? How is each fault determined? [3 marks]

b) Consider the following C# code.

```
[WebMethod]
public Ehailing registerDriver(string driverId, string driverEmail)
{
   // implementation omitted
}

public class Ehailing {
     public string driverName;
     private long driverIc;
     public string carRegNum;
     public string getCarRegNum()
     {
          return carRegNum;
     }
}
```

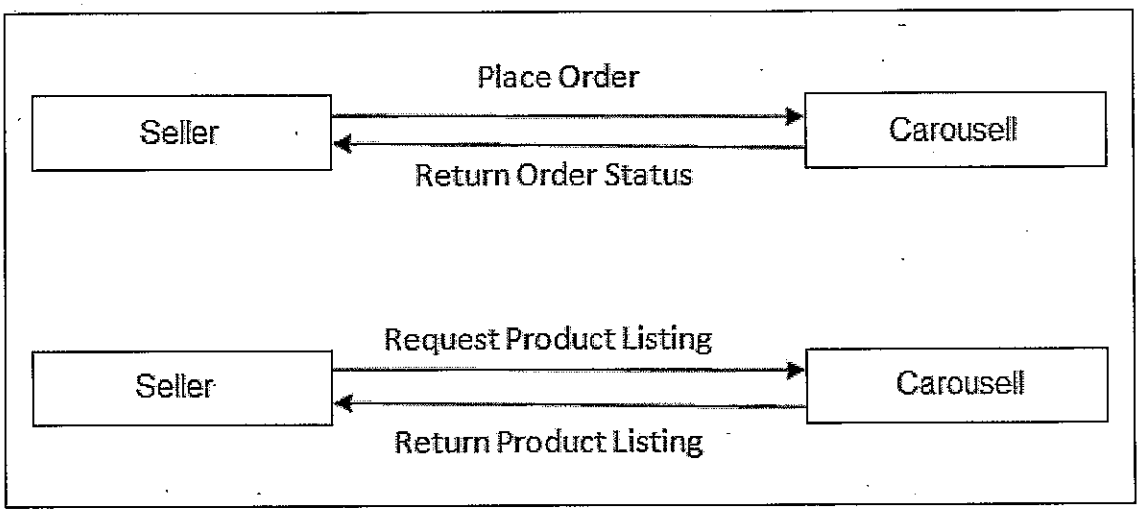
Write the SOAP request and response for the above Web method. [6 marks]

c) What is the information stored in a UDDI yellow page? [1 mark]

Continued.....

Question 4

a) Consider the following scenario.



Write the <types> element of the WSDL that describes all the functions for the above scenario. [4 marks]

b) Refer to the scenario in Question 4(a). Write the <message> elements that describe the messages being used for the communication.[4 marks]

c) How do we measure the quality of a Web Service? [2 marks]

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